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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/667,179	09/19/2003	Albert Lewis	7044	1608

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BONIARD I. BROWN
#113
1500 West Covina Parkway
West Covina, CA 91790

EXAMINER

BOLDEN, ELIZABETH A

ART UNIT PAPER NUMBER

1755

DATE MAILED: 10/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/667,179	Applicant(s) LEWIS, ALBERT	
	Examiner Elizabeth A. Bolden	Art Unit 1755	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 3,9,10,12,24,26,30 and 31 is/are allowed.
- 6) ☒ Claim(s) 1,2,4-8,11,13-23,25,27-29 and 32-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

The disclosure is objected to because of the following informalities: typographical errors.

On page 8, line 21 the term " $\text{Fe}_2\text{O}+\text{FeO}$ " should be changed to read " $\text{Fe}_2\text{O}_3+\text{FeO}$ ".

Appropriate correction is required.

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required:

- 1) The literal support for the upper limit of the Al_2O_3 at 26.0 wt% in the table of ranges on page 8, line 16 and in the ranges recited in the abstract.
- 2) The literal support for "essentially free of Na_2O and K_2O ".
- 3) The literal support for "essentially free of ZrO_2O ".
- 4) The literal support for the upper limit of the Al_2O_3 at 26.0 wt% in the table of ranges on page 14, line 7.
- 5) The literal support for a limit of the Na_2O at 13.0 wt% in the table of ranges on page 14, line 10.
- 6) The literal support for the limit of the MgO at 0 and 0.81 wt% in the table of ranges on page 14, line 13.

7) The literal support for the compositions listed in claims 5, 6, 13-17, 22, 23, 25, 27-29, and 32-35.

These 7 issues of lack of literal support are also discussed below in the rejections of the claims under 35 USC 112, first paragraph.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1, 2, 4-7, 11, 13-23, 25, 27-29, and 32-35 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 1, line 5 recites " Al_2O_3 " as having an upper limit of 26.0 weight percent. The specification and the abstract as originally filed recite an upper range limit of Al_2O_3 25.91 wt%. See page 8, line 16 of the original specification and line 4 of the abstract. Therefore, an Al_2O_3 content of 26 wt % is not supported by the original specification. The specification and abstract should be amended to correct this deficiency.

Claim 2, lines 1-2 recites “the resulting composition is essentially free of Na_2O and K_2O ”. The specification provides no literal support for this limitation. The specification should be amended to correct this deficiency.

Claims 4, 7, and 11, lines 1-2 recites “the resulting composition is essentially free of ZrO_2 ”. The specification provides no literal support for this limitation. The specification should be amended to correct this deficiency

Claim 21, line 5 recites “ Al_2O_3 ” as having a limit of 26.0 weight percent. The specification as originally filed recites an upper range limit of Al_2O_3 23 weight percent. See page 14, line 7 of the original specification. Therefore, an Al_2O_3 content of 26 wt % is not supported by the original specification. The specification should be amended to correct this deficiency.

Claim 28 falls to recite an amount of “ MgO ” resulting in the composition having a MgO content of 0.0 wt%, since the sum of the other components totals 100 wt%. The specification as originally filed recites lower range limits of MgO at 1.84, 2, or 1.80 weight percent. See page 8, line 20 and page 14, line 13 of the original specification and line 6 of the abstract. Therefore, an MgO content of 0.0 wt % is not supported by the original specification. The specification should be amended to correct this deficiency.

Claim 34, line 8 recites “MgO” as having a limit of 0.81 weight percent. The specification as originally filed recites lower range limits of MgO 1.84, 2, or 1.80 weight percent. See page 8, line 20 and page 14, line 13 of the original specification and line 6 of the abstract. Therefore, an MgO content of 0.81 wt % is not supported by the original specification. The specification should be amended to correct this deficiency.

Claims 3, 5, 6, 8-10, 12-17, and 22-35 are what one might call picture claims, which are a specific defined composition, based on an example in the specification. See below Table. However, claims 5, 6, 13-17, 22, 23, 25, 27-29, and 32-35 do not correspond to any examples listed in the specification. While the claimed values are within the claimed ranges of the components, the specification provides no literal support for these limitations. The specification should be amended to correct this deficiency.

The table below shows what claims corresponds to which examples in the specification.

Claim #	3	5	6	8	9	10	12	13	14	15	16	17	22
Example #	1	N/A	N/A	4*	5	6	7	N/A	N/A	N/A	N/A	N/A	N/A
Claim #	23	24	25	26	27	28	29	30	31	32	33	34	35
Example #	N/A	8	N/A	10	N/A	N/A	N/A	9**	11	N/A	N/A	N/A	N/A

* Claim 8 has no TiO₂, 0.33 wt% MnO, and 0.38 wt% P₂O₅, while Example 4 has 0.08 wt % TiO₂, 0.27 wt% MnO, and 0.32 wt% P₂O₅.

** Claim 30 has 2.33 wt% Na₂O, while Example 4 has 2.53 wt% Na₂O.

Claims 18 –20 recite the limitation “resistant to heat and fire for a substantial period of at least three hours to prevent burn-through by the conversion of at least a portion of the fibers into

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a fiber mat of ceram glass". Although this recitation is supported by the specification for a glass fiber, the specification fails to support such a recitation for a glass batch.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

Claims 18-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 18-20 depend from claims 13, 14, and 17 wherein the batch blend has a specific composition comprising TiO_2 in contents of 1.60, 0.72, and 1.37 weight percents, respectively.

Claims 18-20 recite the limitation "wherein the batch is substantially free of TiO_2 ", which renders the claims indefinite since the batch blend must contain the specified amount of TiO_2 and therefore cannot be substantially free of TiO_2 .

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 5, and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Fyles et al., U.S. Patent 5,962,354.

Fyles et al. discloses a glass fiber having overlapping ranges of components with instant claims 1, 2, 5, and 21. See Abstract of Fyles et al. and column 5, lines 44-46. The compositional ranges disclosed by the reference are sufficiently specific to anticipate the compositional limitations in claims 1, 2, 5, and 21. See MPEP 2131.03.

Claims 1, 2, and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Chvalovsky et al., U.S. Patent 3,854,986.

Chvalovsky et al. discloses a glass fiber having overlapping ranges of components with instant claims 1, 2, and 21. See column 2, line 60 to column 3, line 9. The compositional ranges disclosed by the reference are sufficiently specific to anticipate the compositional limitations in claims 1, 2, and 21. See MPEP 2131.03.

Claims 1, 2, 8, and 21 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Rapp et al., U.S. Patent 5,576,252.

Rapp et al. discloses a glass fiber having overlapping ranges of components with instant claims 1, 2, 8, and 21. See column 1, line 55 to column 2, line 5. The compositional ranges disclosed by the reference are sufficiently specific to anticipate the compositional limitations in claims 1, 2, 8, and 21. See MPEP 2131.03.

Allowable Subject Matter

Claims 6, 13-20, 22, 23, 25, 27-29, and 32-35 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 1st paragraph, set forth in this Office action.

Claims 4, 7, and 11 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 1st paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Claims 18-20 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Claims 3, 9, 10, 12, 24, 26, 30, and 31 are allowed.

Reason For Allowance

The following is a statement of reasons for the indication of allowable subject matter:

The prior art fails to disclose or suggest a glass according to the limitations of claims 3, 9, 10, 12, 24, 26, 30, and 31 where the components of the glass fall within the compositional limitations with particular attention to the CaO, SiO₂, Fe₂O₃, and Al₂O₃ content of the glass.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth A. Bolden whose telephone number is 571-272-1363. The examiner can normally be reached on 9:30 am-7:00 pm with alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark L. Bell can be reached on 571-272-1362. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

EAB
22 October 2004


KARL GROUP
PRIMARY EXAMINER
GROUP 1755